

## APPENDIX E: CLAIMS IN MARKED-UP FORM

### WE CLAIM:

1. (Amended) An *in vitro* adhesion cell culture [of] comprising at least 90% GFAP<sup>+</sup> cells, wherein
  - a) one or more cells in the culture have the capacity to differentiate into neurons;
  - b) the cell culture divides in a culture medium containing serum and at least one proliferation-inducing growth factor; and
  - c) one or more cells in the culture differentiate into neurons upon withdrawal of both serum and the proliferation-inducing growth factor.
2. (Amended) The cell culture of claim 1, wherein [the majority] greater than 50% of cells in the culture are nestin<sup>+</sup> under proliferation-promoting culture conditions.
3. (Amended) An *in vitro* cell culture consisting essentially of:
  - a) a culture medium containing serum and at least one proliferation-inducing growth factor; and
  - b) cells derived from the central nervous system of a mammal, wherein [the cells in the culture are]:
    - (i) at least 90 % of the cells are glial fibrillary acidic protein immunoreactive (GFAP<sup>+</sup>),
    - (ii) the cells are capable proliferating in a culture medium containing serum and at least one proliferation-inducing growth factor, and
    - (iii) the cells are capable of differentiating into a population of at least 10% neurons in the absence of both the serum and the proliferation-inducing growth factor from the culture medium.
4. (Amended) The cell culture of claim 3, wherein [the majority] greater than 50% of cells in the culture are nestin immunoreactive (i.e., nestin<sup>+</sup>) under proliferation-promoting culture

conditions.

5. (Amended) The cell culture of claim 1 [or 3] wherein the cell culture differentiates into at least 10% neurons under differentiation-inducing culture conditions.
7. The cell culture of claim 1 or 3, wherein, under differentiation-inducing culture conditions, [the majority] greater than 50% of differentiated neuronal cells have a GABA-ergic phenotype.
9. (Amended) The cell culture of claim 1 or 3, wherein the culture is capable of at least 12 [least] doublings.
18. (Amended) The cell culture of claim 1 or 3, wherein at least [some] a portion of the cells in culture differentiate into radial glia in the absence of serum from the culture medium.
21. (Amended) The cell culture of claim 1 or 3, wherein at least [some] a portion of the cells in culture, under differentiation-inducing culture conditions, differentiate into neurons that exhibit:
  - (a) axon-dendrite polarity,
  - (b) synaptic terminals, and
  - (c) localization of proteins involved in synaptogenesis and synaptic activity including
    - (i) neurotransmitter receptors,
    - (ii) transporters, and
    - (iii) processing enzymes.
44. (Amended) The method of claim 22 wherein [the majority] greater than 50% of differentiated neuronal cells are immunoreactive with striatal neuronal markers.
46. (Amended) The method of claim 22 wherein [the majority] greater than 50% of differentiated neuronal cells are not immunoreactive with cortical neuronal markers.

48. (Amended) The method of claim 22 wherein [the majority] greater than 50% of differentiated neuronal cells are not immunoreactive with neuronal markers of the medial ganglionic eminence.
50. (Amended) The culture of claim 1 or 3 wherein under differentiation-inducing culture conditions, [the majority] greater than 50% of differentiated neuronal cells have a GABA-ergic phenotype.
51. (Amended) The culture of claim 1 or 3 wherein [the majority] greater than 50% of differentiated neuronal cells are immunoreactive with striatal neuronal markers.
53. (Amended) The culture of claim 1 or 3 wherein [the majority] greater than 50% of differentiated neuronal cells are not immunoreactive with cortical neuronal markers.
55. (Amended) The culture of claim 1 or 3 wherein [the majority] greater than 50% of differentiated neuronal cells are not immunoreactive with neuronal markers of the medial ganglionic eminence.